DEPARTMENT OF THE AIR FORCE
Headquarters, United States Air Force
Washington DC 2O33O-1490

CHANGE 1
CFETP 15WX
December 2000

This change is effective with class starting 20010620:

1. Required changes:

Page	Paragraph	Column	Action
18 - 24			Remove pages and destroy. Replace with pages 18 - 24

2. After necessary action, file this sheet in the back of CFETP.

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Directorate of Weather
DCS/Air and Space Operations

DEPARTMENT OF THE AIR FORCE
81st Training Group (AETC)
Keesler Air Force Base Mississippi 39534-2038

CTS E3OBR15W1 002
(PDS Code DAI)
December 2000

WEATHER OFFICER

1. Implementation of training in support of this CTS is with class beginning 20010620 and graduating 20010918.

2. Purpose. This course training standard:

a. Establishes the training requirements using tasks, knowledge, and proficiency levels for course E3OBR15W1 002, Weather Officer.

b. Provides the basis for the development of more detailed training materials, training objectives, and training evaluation instruments for the course.

3. Course Description. This course provides training for Air Force officers, AFSC 15W1, in the knowledge and skills necessary to perform the duties of a Weather Officer. The scope of training includes career development; concepts of observing weather elements; decoding meteorological reports; weather analysis and prognosis; weather support systems; wartime weather support; operations of an Operational Weather Squadron (OWS); WSR-88D, Doppler Radar; meteorological satellite (METSAT); and concepts of weather communications.

4. Qualitative Requirements. Attachment 1 contains the task, knowledge, and proficiency levels referenced in paragraph 2. Dual codes for knowledge and/or tasks indicate that the item cannot be trained to that level due to resource constraints. Those items indicate the established requirement followed by a slash mark (/) and the level that can be obtained until resources are available, for example: 2b/A.

5. Recommendations. Comments and recommendations are invited concerning quality of AETC training. Reference this CTS and address correspondence regarding changes to 81 TRG/TGET, 825 Hercules, Suite 101, Keesler AFB MS 39534-2037. A Customer Service Information Line (CSIL) has been installed for the supervisor's convenience to identify unsatisfactory performance of individual graduates or to identify graduates who may have received over or under training on task/knowledge items listed in this training standard. For quick response to problems, call our CSIL, DSN 597-4566, anytime day or night.

JOHN R. BRYANT, Colonel, USAF
Commander

1 Atch
Qualitative Requirements

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Supercedes CTS E3OBR15W1 002, October 1998
Prepared by: 335 TRS/TRRA
Approved by and Date: HQ USAF/XOWR, 5 January 2001
Distribution: X (Continued on page 2)

QUALITATIVE REQUIREMENTS

PROFICIENCY CODE KEY		
	SCALE VALUE	DEFINITION: The Individual
TASK PERFORMANCE LEVELS	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task.
	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task.
*** TASK KNOWLEDGE LEVELS**	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step by step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, isolate, and resolve problems about the task. (COMPLETE THEORY)
****SUBJECT KNOWLEDGE LEVELS**	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)

EXPLANATIONS

* *A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Examples: b and 1b)*

** *A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.*

\- *This mark is used alone instead of a scale value to show that no proficiency training is provided in the course.*

x *This mark us used alone in course columns to show that training is required but not given due to limitations in resources.*

Distribution: (Continued from page 1)

HQ AFWA/DNT	1
HQ AFSAT/SDS	1
HQ USAF/XOWR	1
HQ ANG/DOOSW	1
81 TRG/TGET	1
335 TRS/UOAA	6
335 TRS/TRRA	8

QUALITATIVE REQUIREMENTS

Tasks, Knowledge, and Proficiency Level

Note: The same tasks/knowledge will be trained during the peacetime and wartime courses.

1. CAREER DEVELOPMENT

1.1. Doctrine of Aerospace Weather Operations	B
1.2. Assignment Roles and Responsibilities	
1.2.1. Operational Weather Squadron (OWS)	B
1.2.2. Weather Flight Operations	B
1.2.3. Staff Positions	B
1.2.4. Enlisted	B
1.3. Career Progression Opportunities	B

2. WEATHER SUPPORT SYSTEM

2.1. Centralized Weather Support	
2.1.1. Air Force Weather Agency (AFWA)	B
2.1.2. Support Assistance Request (SAR)	B
2.2. Regional Weather Support	B
2.3. Weather Flight Support	B
2.4. Joint Support	
2.4.1. Policy	B
2.4.2. Operations	B
2.5. Interactions with other Services/Agencies	A

3. WARTIME WEATHER SUPPORT

3.1. Mobility Concepts	B
3.2. Theater Battle Management	
3.2.1. Intelligence Preparation of the Battlefield (IPB)	B
3.2.2. Air Tasking Order (ATO)	B
3.2.3. Battlefield Sensing	B

4. WEATHER IMPACTS ON WEAPON SYSTEMS

4.1. Land Operations	B
4.2. Air Operations	B
4.3. Sea Operations	B

4.4. Special Operations	B
4.5. Space Operations	B
5. CONCEPTS OF OBSERVING	A
6. DECODE METEOROLOGICAL REPORTS	
6.1. METAR	2b
6.2. Synoptic	2b
6.3. Pilot Report (PIREP)	2b
6.4. Upper Air	2b
6.5. Terminal Aerodrome Forecast (TAF)	2b
7. ANALYSIS AND PROGNOSIS	
7.1. Numerical Weather Prediction (NWP)	
7.1.1. Models	B
7.1.2. Initialize NWP Products	2b
7.1.3. Verify NWP Products	2b
7.2. Forecast Process (Funneling Process)	B
7.3. Climatology	
7.3.1. Physical characteristics of air masses	B
7.3.2. Regional Climatology Applied to Military Operations	B
7.3.3. Weather Regimes	B
7.3.4. Apply Climatology in Forecast Preparation	2c
7.4. Oceanography/Hydrology	B
7.5. Mid-latitude Weather Systems	
7.5.1. Vertical Consistency	B
7.5.2. Severe Weather	
7.5.2.1. Non-convective	B
7.5.2.2. Convective	B
7.6. Analyze	
7.6.1. Surface Charts	2c
7.6.2. Upper-air Charts	2c
7.6.3. Non-convective Severe Weather Parameters	2c
7.6.4. Convective Severe Weather Parameters	2c
7.7. Reanalyze Automated Produced Products	2c

7.8. Air Mass Sounding (Skew-T) Evaluation	C
7.9. Aviation Weather Hazard Forecasting	
7.9.1. Turbulence	B
7.9.2. Icing	B
7.10. Prepare	
7.10.1. Terminal Aerodrome Forecasts (TAF)	2b
7.10.2. Weather Watches	2b
7.10.3. Weather Warnings	2b
7.10.4. Weather Advisories	2b
7.11. Encode Terminal Forecast	2b
7.12. Perform Meteorological Watch	2b
7.13. Prepare and Present Weather Briefings	
7.13.1. Aircrew	2b
7.13.2. Staff	2b
7.14. Conduct Meteorological Discussion	2b
7.15. Weather Sensitivities of Electro-optic Systems	B
7.16. Forecast Meteorological Events by Integrating All Available Data	2b

8. SPACE ENVIRONMENT

8.1. Concepts of Space Weather	B
8.2. Implication to Weapon Systems	B
8.3. Apply Products to Operations	1a

9. OPERATIONAL WEATHER SQUADRON (OWS)

9.1. Regional Analysis and Forecast Program	B
9.2. Weather Support Documents	B
9.3. Base/Post Operations	
9.3.1. Basic Flight Rules	A
9.3.2. Basic Flight Publications	A
9.3.3. Operational Weather Sensitivities	B
9.4. Computer Flight Plans	A
9.5. Support to Aircraft Mishap Boards	A

10. AUTOMATED FORECASTING TOOLS

10.1. Overview	B
10.2. Product Descriptions	B

10.3. Interpret Automated Forecasting Products 2b

11. WEATHER RADAR

11.1. Doppler Radar Theory B

11.2. Radar System Concepts B

11.3. Interpret Automated Doppler Radar Displays and Products 2b

12. METEOROLOGICAL SATELLITE (METSAT)

12.1. Principles and Systems Control

12.1.1. Capabilities and Limitations of Satellite Systems B

12.1.2. Data Display Techniques B

12.2. Microwave Data Applications

12.2.1. Algorithms and Derived Parameters B

12.2.2. Displays and Applications B

12.3. Satellite Imagery

12.3.1. Systems B

12.3.2. Imagery Features B

12.3.3. Microwave Products B

12.3.4. Relationships of Data to Meteorological Events B

12.3.5. Depict Wind Flow 2b

12.4. Practical Application of Satellite Data

12.4.1. Depict Wind Flow Using Streamlines on Satellite Data 2b

12.4.2. Interpret Meteorological Events Using Satellite Data 2b

12.4.3. Initialize NWP Products Using Satellite Data 2b

13. COMMUNICATIONS

13.1. Organizational Structure of DoD/DCS C4 Systems B

13.2. Data Flow and Air Force Weather (AFW) B

13.3. Perform Pilot-to-METRO Service (PMSV) Contacts 2b

14. TROPICAL

14.1. Structure of tropical weather systems B

14.2. Properties of tropical weather systems B

SUMMARY OF CHANGES

Based on a scrub of the CTS at the 13 – 17 November 2000 U&TW, CTS items were deleted which were inherent to other CTS items. i.e. their knowledge or performance are required teaching steps in accomplishing the remaining CTS items.